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ABSTRACT

This study of opinion leadership among vocational agriculture teachers in South Carolina solicited nominations of teachers as sources of information and advice from participating teachers at two different points in time, spring 1968 and spring 1970. This time-lapsed design allowed an estimate of opinion leadership stability since the sample of teachers remained the same except for natural shifts due to teacher replacement and program changes. In addition, this study attempted to replicate the key-informant versus sociometric techniques comparison for identifying opinion leaders. Data were collected on reasons for the opinion leadership selection and the communications linkages for face-to-face relationships among teachers, supervisors, and teacher educators. Major conclusions of the study included: (1) Teachers of vocational agriculture named as opinion leaders were older, had more earned college credit, and had attended a greater number of workshops than their peers, and (2) Teachers nominated as opinion leaders in more than one instructional area were stable for the 2-year period, while the opposite was true for teachers nominated in only one area. (Author/JS)

OPINION LEADERSHIP AND COMMUNICATION LINKAGES AMONG AGRICULTURAL EDUCATORS

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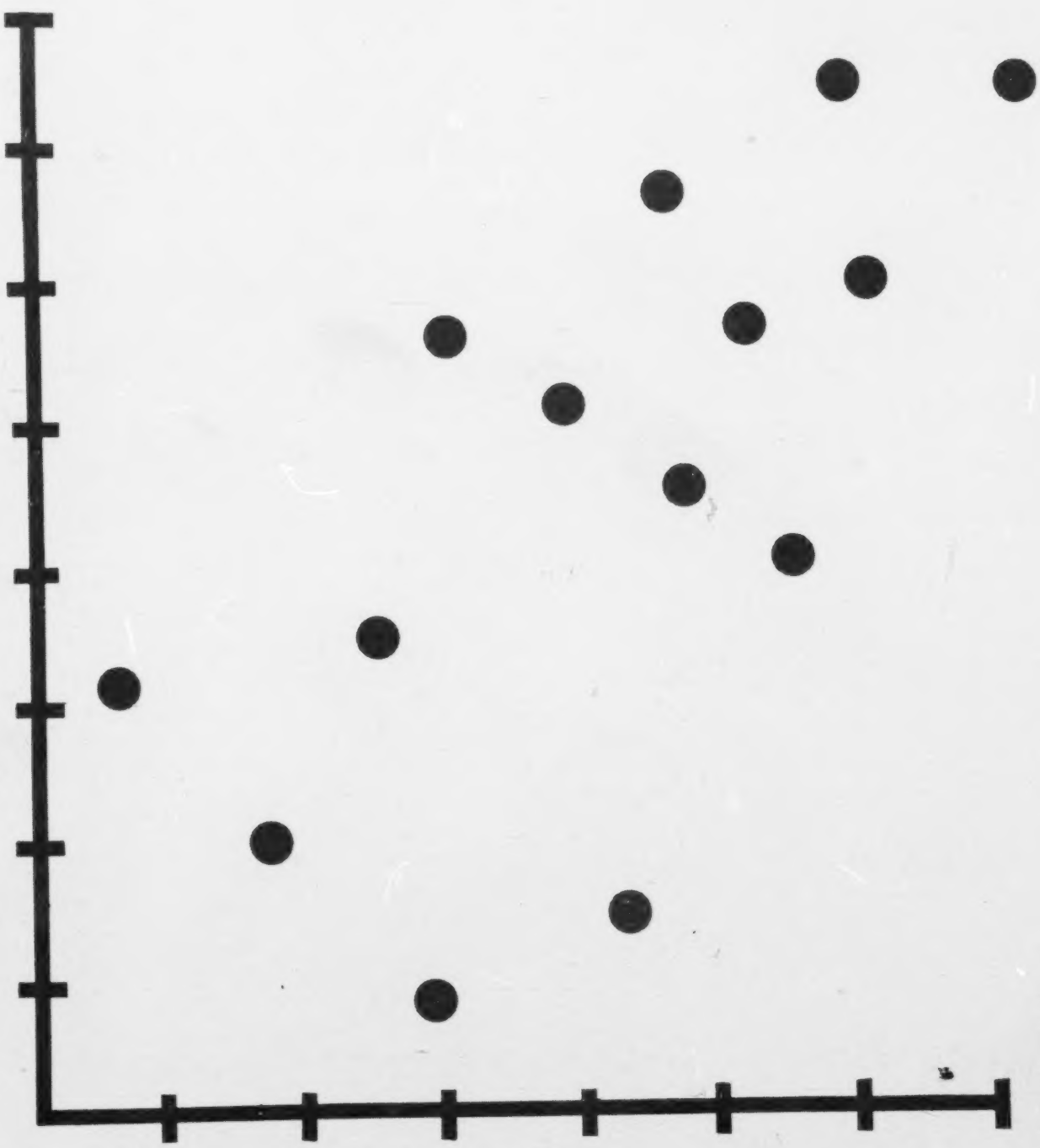

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RESEARCH AND DEVELOPMENT
SERIES NO. 52

OPINION LEADERSHIP AND COMMUNICATION LINKAGES AMONG AGRICULTURAL EDUCATORS

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PREFACE

The identification and use of opinion leaders to enhance the diffusion of exemplary innovations is a recurring theme in a series of studies on the change process in vocational and technical education. This study examines the stability of opinion leadership among vocational agriculture teachers in South Carolina. Communication linkages among supervisors, teachers and teacher educators are described. This project reinforces a previous Center study of opinion leadership completed by James W. Hensel and Cecil H. Johnson in the same state.

We acknowledge the cooperation and assistance of Cecil H. Johnson, Director of Vocational Education, South Carolina; Lowery H. Davis, Department of Agricultural Education, Clemson University, and his staff; and Frank Stover, State Supervisor of Agricultural Education, and his staff; and the vocational agriculture teachers of South Carolina.

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Robert E. Taylor
Director
The Center for Vocational
and Technical Education

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SUMMARY

Opinion leaders have potential as agents of change in school systems. Their identification and use could become a means of diffusing exemplary innovations in vocational education.

This study of opinion leadership and communication linkages examined the stability of opinion leadership among teachers of vocational agriculture in South Carolina during the Spring of 1970. Essentially the same population of teachers, supervisors, and teacher educators responded to a similar study in 1968. This time span of two years allowed observation of changed opinion leader characteristics and a retest of the key-informant technique for identifying opinion leaders. In addition, this study investigated reasons why opinion leaders were nominated by peers and conditions surrounding face-to-face communication among teachers, supervisors, and teacher educators.

Data were collected at district meetings of teachers throughout the state during April of 1970. Over 80 percent of the 273 teachers of vocational agriculture completed the questionnaire. Interviews were conducted with five district supervisors and five teacher educators to determine communication patterns with teachers. The supervisors were asked to serve as key-informants to identify teacher opinion leaders in 11 instructional areas of vocational agriculture. The supervisors' lists were compared with lists developed through sociometric analysis.

The findings of the study revealed little stability of opinion leadership among teachers of vocational agriculture. The 1970 data showed generally low correlations of opinion leader lists with the 1968 data for each instructional area. Opinion leaders who cut across instructional areas each year exhibited relatively great stability. Teachers of vocational agriculture named as opinion leaders were older, had more years of teaching experience and had more earned college credit than their peers.

Key-informants were able to identify slightly more than one-third of the opinion leaders nominated through the sociometric technique. This finding tends to restrain the unqualified use of key-informants to select opinion leaders.

Teachers nominated by their peers as opinion leaders were perceived as ready and willing to discuss programs of vocational agriculture. This characteristic and the perceived competency of their students were the major reasons for their selection as opinion leaders.

Most face-to-face communication between supervisors and teachers of vocational agriculture takes place during district meetings. Program reports and the preparation of students for contests account for much of the communication.

OPINION LEADERSHIP AND COMMUNICATION LINKAGES AMONG AGRICULTURAL EDUCATORS

CHAPTER I

OPINION LEADERSHIP IN EDUCATION

INTRODUCTION

The teaching profession contains one of the largest single groups of projected annual occupational openings[1] in the United States (Young, 1969, pp. 37, 40). The magnitude of this investment in human resources mandates need for an efficient and effective system of education. Most local and state school systems do not maintain systematic surveillance of current conditions with an aim to improve education procedures or products. It is easy to follow a laissez-faire attitude towards planned change, and to allow the circumstances of crises to dictate alternatives for decision-making.

The ability of our educational system to keep abreast of current needs and developments in society at large determines the relevance of educational programs. Self-renewal mechanisms need to be developed for translating and allocating resources to appropriate program activities. Education leaders in government and other positions of influence have a responsibility for initiating new and emerging programs which are more relevant to student needs than existing programs. The use of opinion leaders at the local level to influence fellow vocational teachers offers one strategy for initiating change and innovation in public schools.

The process of diagnosing problem areas in the system, identifying alternative plans and strategies for solving problems and implementing the proposed solution holds the key for the development of an ongoing improvement system for education. Most frequently, this change process is initiated by a subsystem within the context of school management procedures. However, not all of the forces which act on the improvement of instruction are subject to formal assessment and redirection by school officials. Informal associations among teachers, the image of the school system in the community, and other subtle factors influence the opportunity for professional educators to improve student learning.

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[1]The estimate of annual occupational openings between 1966-75 was determined by adding the growth in the occupations to the losses of persons due to death, transfer, and retirement.

This publication focuses on opinion leadership as one segment of the improvement cycle. Schutz (1970, p. 47) describes the educational development process as one of product development,[2] installation, and operation. Installing educational innovations into school systems requires attention to the attitudes, dispositions and professional orientations of teachers. The introduction of instructional materials or new methods of teaching usually requires the cooperation and support of teachers. If teachers can enthusiastically endorse the change, it is more likely to be a success.

Change agents can enhance the acceptance of an innovation by involving teachers who are influential within their school system in the process of assessing the proposed innovation. They may be asked to adapt and revise the innovation to fit the requirements of the school system.

Obtaining a consensus from potential users of the product on the advisability of adopting a particular innovation usually pays big dividends in reducing resistance to change.

One strategy for diffusing an innovation within a school system includes the use of opinion leaders. Rogers (1962, pp. 16, 208-9) describes "opinion leaders" as individuals from whom others seek information and advice. These "leaders" may actively promote an idea or their role in legitimizing an idea may be passive depending on the innovation and the conditions surrounding its adoption. If opinion leaders are to serve as linkers between an information resource system and the client system, more must be known about opinion leadership identification, stability of influence over time, and generation of influence among followers.

ENCOURAGING SYSTEMATIC CHANGE IN EDUCATION

A great need exists to shorten the time lag between the development of an educational innovation and its adoption by school systems. This time period must allow for adequate testing of the idea and its adjustment to fit the needs of respective school systems. Progress is being made. But more needs to be done.

A report of the National Commission on Technology, Automation, and Economic Progress (1966, p. 4), shows the average lapsed time between the basic discovery of an innovation and its introduction as a commercial product or process has been reduced from 37 years in the early 20th Century to 14 years in post World War II. This report was based on a study of 20 major innovations whose commercial development started between 1885 and 1950.

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[2]Product development refers to research-based methods or materials rather than students in the system.

Carlson's study (1965, pp. 16-18) of modern math showed that only five years were required to reach 90 percent adoption by 43 schools in Allegheny County, Pennsylvania. A more intensive look at adoption patterns among school superintendents revealed a close relationship between time of adoption and first choice sociometric pairs. The order of choice of friends forming sociometric pairs influenced the time of adoption. The findings gave creditability to the regulating or mediating function of reference groups.

A wide variety of reference groups with sometimes conflicting values gives rise to the problem of goal-diffuseness. Sieber (1968, pp. 131-2) claims a change agent is vulnerable to the accusations and demands of laymen and professionals alike. Various reference groups support different educational goals. Consensus on issues and programs of action is difficult to obtain. These conditions inhibit the development of a streamlined system for planning change in most school systems. Parents, teachers, and students need to agree on the goals of education if change occurs systematically and deliberately.

Planned change in education requires a consistent flow of information about the school system which includes periodic reports on progress towards system goals. Lippitt (1965, pp. 12-14) discusses the need for a network of communications and agents of change. For example, tenured teachers in a school system feel threatened by the innovative ideas of more recent teacher education graduates. Conscious attempts to alleviate the apprehensions of co-workers form a necessary part of any school innovator's activity. Research is needed on communication required for innovation adoption in school systems.

Educators should not succumb to the temptation to depict change as good and resistance to change as bad. In the absence of a means of testing the validity of innovations, professional educators should be cautious in substituting the new for the old. Missing from most educational systems is an engineering function which designs and tests the idea according to rigorous standards of excellence. Adequate evaluation devices for assessing the impact of innovations on student learning do not exist in most cases. Personal testimonials and coercive strategies intended to cement power relationships fill the vacuum of tested product information. Rational processes must be developed for engineering educational products to meet the needs of clientele student groups.

Another factor which discourages systematic change in education is the attitude of "reticence, suspicion, and fear on the part of educators" found by McClelland (1968, p. 9) in his review of change process studies. Schmuck (1968, pp. 152-4) reports studies indicating a lack of trust between the university-based researcher and the school administrator. The suspicion experienced by both the researcher and the school administrator is supported

by their respective reference groups. Researchers are frequently perceived by administrators as being foolish, overly critical, and not knowledgeable about the school system. Administrators are perceived by researchers as defensive, unfriendly and nonsupportive. These communication handicaps must be overcome with more direct face-to-face relationships where cooperative research can make a direct input to the improvement of the local school system.

This discussion has characterized the education institution as slow to adapt inventions useful to the local school system. This has resulted from inadequate articulation between research and practice, the lack of an engineering function, goal-diffuseness, poor communication on the advantages of innovations, and an attitude of reticence, suspicion and fear on the part of educators. Improvement in the system can be achieved when strategies are developed to communicate accurately precise information for procedural and structural improvement.

CHANGING VOCATIONAL EDUCATION

Since the Smith-Hughes Act[3] in 1917, a system of vocational education has linked national, state and local agencies. State plan provisions for matching funds have provided incentives for directing program development. The 1963 Vocational Education Act included provisions for research and training programs for the first time. Developmental pilot programs were encouraged to try new and different approaches in vocational education. This spirit of scientific inquiry was reinforced by Public Law 90-576, the 1968 Amendments to the Vocational Education Act. Part C of the Amendments continued emphasis on research and training; part D provided for continued funding of exemplary programs and projects. A new provision in this law was the writing of local plans of vocational education, with the state plan reflecting the local plans. This "decentralization" of the planning function opened new vistas for program development and improvement.

Open communication is a requisite to any operational system of program development. State divisions of vocational education must be well coordinated with mutual trust among hierarchical levels. The key to effective leadership is the ability of people within an organization to cooperate and keep lines of communication open (Havelock, 1968, p. 97). Simon (1957, p. 149) suggests that a proper allocation of duties and maintenance of adequate channels of communication within an organization may both relieve the need for growth of informal channels and encourage cross-fertilization

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[3] This act, Public Law 347, appropriated funds for programs of agricultural, trade, home economics, and industrial education.

and attitudes of cooperation within the formal structure. Supervisors should do all they can to maintain anxiety-free relationships with each other and with teachers of vocational education. The advantages which accrue from an open system are many (Foster, 1968, p. 291):

1. A commitment of most of the staff to self-examination and change.

2. The infusion of the ideas of many professional people into the developmental stages of the learning process.

3. The enhancement of the uniqueness of each person, who can change in his own particular way.

4. The appreciation by the members of the staff for creative work done by their colleagues.

5. The self-correcting that takes place when each person is free to evaluate his own teaching activity and is able to make corrections without any feeling of failure, discrimination or low evaluation.

6. The development in the system of a program that reflects the collective, involved intelligence of the group rather than the master input of one or a few people.

A major impetus for change in vocational education has occurred through legislation during recent years. Presumably, these acts represent the will of the people and interpret needs of society. It becomes the responsibility of vocational education agencies, including state divisions and teacher education departments, to implement change in programs to comply with legislative mandates. Restructuring vocational education to serve clientele groups rather than substantive disciplines requires the coordination and cooperation of agencies. Lines of communication must remain open to receive suggestions from teachers and to disseminate innovations to local school systems. It is through a reciprocal exchange of ideas that program improvement in vocational education can be best effected.

INFLUENCING OPINION THROUGH LEADERS

Communications flow takes many patterns depending upon the shape and structure of the organization. Horizontal communication can be expected in a relatively "flat" organization with several individuals answering to a single administrator. Organizations with a hierarchical structure are likely to have vertical communication. Traditionally, more information is passed from the top down than from the bottom up. State supervisors play a key role

in encouraging expression of ideas among teachers for the improvement of the profession.

In the strictest sense of the phrase, state supervisors of vocational agriculture are potential opinion leaders. They come in contact with local teachers on a regular basis and transmit program information interpreted through the rules and regulations to vocational teachers. Their role as a linker of information from local teachers to the state division office functions only as they have opportunity to contact school personnel and only as they are able to maintain a supportive receptive climate with their teachers. Research evidence indicates (Simon, 1957, p. 163) that information will be transmitted upward in an organization only if it will not have unpleasant consequences or if the superior will hear of it anyway. It is the unusual supervisor who can motivate others to share information for constructive criticism of the state system and the profession.

One of the alternatives open to supervisors of vocational agriculture for influencing the direction and scope of change in local programs is the use of teacher opinion leaders. If opinion leaders can be identified by supervisors as sources of information on program changes, a system can be devised to diffuse appropriate innovations to the vocational agriculture community. Teacher opinion leaders become the agents linking practicing vocational teachers to supervisors and other sources of innovative ideas. This approach to influencing change in vocational agriculture is viable only if: 1) teacher opinion leaders can be identified by supervisors; and 2) opinion leadership in vocational agriculture is sufficiently stable over time to exert consistent influence; and 3) opinion leaders can maintain rapport with followers despite the close association with state staff.

Knowledge of opinion leadership and its role in the flow of information grew out of a study of the 1940 presidential election campaign.[4] A hypothesis emerged from this study which had profound implications for social theory and communications research. The "two-step flow of communication" hypothesis implied a network of individuals interconnected by channels of communication. Information from mass media flowed first to selected persons dubbed opinion leaders; then it was communicated by the leaders to followers through personal influence. Lazarsfeld and others (1948, pp. 135-152) concluded that personal contacts were more frequent

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[4]See Paul F. Lazarsfeld, Bernard Berelson, and Hazel Gaudet, *The People's Choice* (2nd ed.; New York: Columbia University Press, 1948), p. 151. This was one of a series of studies at the Bureau of Applied Social Research of Columbia University to build on the two-step flow of communication hypothesis.

and more effective than mass media in influencing voting decisions. Opinion leaders were found in every level of society and were very much like the people they influenced.

Katz (1957, pp. 65-70) analyzed three studies based on the two-step flow of communication hypothesis. Each was designed to add new knowledge to existing information about opinion leadership. Among other findings was the view that opinion leadership was not a "trait" which some people possess. Rather the opinion leader is influential only at certain times and with certain substantive areas by virtue of the authority given by other members of his group. Personal influence seemed to account for opinion leadership more frequently than any of the mass media.

Personal influence is transmitted through membership in groups and status sets. The status set refers to the complex of distinct positions assigned to individuals both within and among social systems (Merton, 1957, p. 381). Communication links between institutions and subsystems of society are formed through personal status sets. As an opinion leader relates to members of one group, his roles and relationships with other groups are perceived at the same time. It is not surprising, therefore, to find opinion leaders influencing each other and a high degree of homogeneity in primary groups (Katz, 1957, pp. 64, 71).

Social group members are somewhat dependent on relationships which exist among the groups for the diffusion of new knowledge. Havelock (1969, pp. 2-35) suggests this information exchange between leaders and followers breeds trust and develops firm interpersonal relationships. Through this system, influence is exerted to persuade others to try a new idea. It appears this system of influencing others is more complex and complicated than a simple dyad relationship between leader and follower (Katz, 1957, p. 67).

A recent review (Kingdon, 1970, pp. 257-60) of political opinion leaders revealed few leader-follower differences among age groups. High status occupational groups had almost twice as many opinion leaders of some sort as low status occupational groups. Interpersonal communication appears to be an important source of information for voters.

Havelock (1968, p. 79) points out that the two-step flow of communication hypothesis has proved problematic in many ways. He suggests the assumptions of only two steps, influence through only one channel, and influence by media sources of information results in opinion leaders, should be questioned. Opinion leaders exist in every group regardless of the norms of that group. It is possible to have opinion leaders of not very progressive groups. Opinion leaders typify the norms of the group to a greater extent than the average member. In a real sense they personify the values and ideals of the group. Opinion leaders recognize they are serving

a leadership role to the group and strive to maintain their influence on members of the group.

Hensel and Johnson (1969, pp. 15-16) noted the following generalizations concerning opinion leaders. Opinion leaders:

1. held a particular interest and competence in the sphere of discussion for which they led;
2. had greater personal interaction through greater social participation;
3. were more innovative than the individuals upon whom they exerted personal influence;
4. were more cosmopolite than the individuals upon whom they exerted personal influence;
5. conformed more closely to the social system norms than other individuals in the social system;
6. used more impersonal, technically accurate, and cosmopolite sources of information than other individuals in the social system;
7. were accorded higher social status than the individuals upon whom they exerted personal influence;
8. were older than the individuals upon whom they exerted personal influence;
9. had achieved a higher educational level than the individuals upon whom they exerted personal influence;
10. had higher incomes than the individuals upon whom they exerted personal influence;
11. may have been monomorphic or polymorphic in their spheres of influence;
12. held a disproportionate number of elected and appointed offices in formal organizations than did the individuals upon whom they exerted personal influence;
13. were characterized by a sense of belonging to the community and were inclined toward service to the community;
14. were exposed to the mass media to a greater extent than those upon whom they exerted personal influence.

The role of opinion leaders as they function to effect change among their followers is the focus of this literature review. Opinion leaders must be identifiable if they are to be used as linking agents. More must be known about the groups they influence and the nature of this influence relationship. The reasons they are selected by their followers could provide clues to their effectiveness in innovation diffusion. And the stability of opinion leadership determines its value as a consistent force for change. These factors are examined in more detail in the following paragraphs.

Several techniques are available for identifying opinion leaders. The most widely used approach is the sociometric technique. Members of a group are asked to nominate individuals who are sought after for advice. Communication links are established between individuals with chains of influence patterns noted. This technique has been used in a variety of settings with satisfactory results. Another technique used for identification of opinion leaders is the key-informant technique. Knowledgeable individuals are asked to identify opinion leaders in a group. Hensel and Johnson (1969, p. 47) found the key-informant technique with state supervisors of vocational agriculture to provide an excellent alternative to the sociometric technique. A third alternative of identifying opinion leaders is the self-designating technique. Individuals are asked to determine their own degree of opinion leadership. This technique includes the self-perceptions of the respondent.

Clearly, opinion leadership is a group phenomenon. Influence which is conferred upon the leader relates directly to the boundaries which circumscribe the values and goals of the group. According to Katz (1957, p. 77), "The workings of group pressure are clearly evident in the homogeneity of opinion and action observed among voters and among doctors in situations of unclarity or uncertainty." Much of the pressure is felt in the form of interpersonal influence which frequently takes the form of face-to-face communication. "Interpersonal relations," claims Katz (1957, p. 77), "are (1) channels of information, (2) sources of social pressure, and (3) sources of social support, and each relates interpersonal relations to decision-making in a somewhat different way." This infers that opinion leaders limit their influence to relatively small groups of followers who think and act much like themselves.

Relatively few people exert influence upon people on all levels of the influence-structure. Merton (1957, p. 411) suggests there is a secondary tendency for people to be otherwise influenced by their peers in that structure:

> A few individuals at the top may have a large individual quantum of influence, but the total amount of influence

of this comparatively small group may be less than that exercised by the large numbers of people found toward the lower ranges of the influence-structure.

If the opinion leaders introduce many different innovations to their followers, they must be cautious in exceeding the limits of their influence. Opinion leadership is informal and not necessarily a function of a person's formal position in the system. For example, a subordinate may be coerced into accepting a decision by a superordinate because of the power he controls.

Opinion leaders may exert influence in more than one group and in more than one area of expertise. When this happens the opinion leader is said to be polymorphic. Havelock's definition (1969, pp. 7-11) of opinion leadership as a pattern of imitation which is focused on one particular person over time, and across a number of innovations tends to focus on polymorphic opinion leaders. This type of leadership may be more stable over time than monomorphic leaders. Monomorphic opinion leaders, those individuals who function primarily in a single sphere of influence, tend to be more cosmopolitan in their activities. The monomorphic interests of cosmopolitan opinion leaders take them to area and state group meetings. Local opinion leaders, on the other hand, tend to be polymorphic and oriented to a particular geographic community. Merton (1957, pp. 414-5) suggests that locals and cosmopolitans not only exert influence in different spheres, but also that the locals are more likely to be polymorphic and the cosmopolitans, monomorphic. It is a question, claims Katz (1957, p. 74), of whether the people with whom he (the opinion leader) is in touch happen to be interested in the area of his leadership, although interest alone is not the determining factor. Followers must perceive the opinion leader as the type of person they want to become. The stability of opinion leadership is influenced by a number of factors including the opportunity for personal contact, the nature of the idea being adopted, the degree of conformity of the group, and the context of the system in which the adoption takes place.

More research needs to be done on the location of the monomorphic and polymorphic influentials in the social structure (Merton, 1957, p. 415). The nature and extent of influence within groups deserves special attention. Katz (1957, p. 73) lists three reasons related to influence: 1) personification of certain values (who one is); 2) competence (what one knows); and 3) strategic social location (whom one knows). Social location refers to whom one knows within the group as well as "outside" the group. Knowledge of why people follow an opinion leader could suggest ways of implementing the diffusion of innovations.

OBJECTIVES OF THE STUDY

This study was initiated to determine if opinion leaders remained relatively unchanged after a period of two years. For purposes of this study, the sociometric technique is considered to accurately reflect a teacher's choice of opinion leaders. If leadership influence shifts within a group, what causes this change? What factors account for information search behavior? These questions and others have been transformed into the following objectives:

1. To determine the stability of vocational agriculture opinion leadership from 1968 to 1970 in a single state.

2. To examine key-informant and sociometric techniques for identifying opinion leaders.

3. To identify reasons why peers select certain teachers as opinion leaders.

4. To describe communication linkage between teachers in local programs and state-level supervisors and teacher educators.

CHAPTER II

METHODOLOGY OF THE STUDY

This study was conducted as a follow-up activity of a previous Center project (Hensel and Johnson, 1969). No attempt was made to control or appraise intervening factors which may have influenced the opinion leadership of vocational agriculture teachers in South Carolina during the two-year span of time.

DEFINITION AND SELECTION OF THE SAMPLE

The population for this study was located in South Carolina. The 273 teachers of vocational agriculture in secondary schools, the five agriculture education supervisors from the state department of education, and the five teacher educators from the state's land grant university, Clemson University, is the population for this study.

All vocational agriculture teachers of South Carolina attending district meetings had an opportunity to respond to the questionnaire used to nominate opinion leaders. Usable returns from teachers numbered 219, slightly better than 80 percent return. These data represent a sample of convenience from the population. These teachers nominated their peers as leaders in selected instructional areas, described selected personal and situational characteristics, and indicated sources of information for solving problems. See Appendix C for a copy of the questionnaire.

Undoubtedly, the 1970 teacher population was not identical to the 1968 population. Differences due to new teachers, retirements, deaths and job changes existed. This condition allowed the research team to observe opinion leadership stability in a natural setting. The researchers were able to observe changes in the opinion leadership status of those teachers who were a part of both the 1968 and 1970 teacher population. The number of teachers was 272 in 1968 and 273 in 1970, at the data gathering point in time.

The five teacher education staff members of the Clemson University agricultural education department were chosen as data sources because their contacts with teachers were judged by the researchers to be extensive. The contacts considered were those which were due to: 1) interaction in preservice and in-service education activities, at the university and at those extension

centers usually used for conducting in-service education activities; 2) youth and adult conferences, conventions, and awards programs; 3) apprentice teaching programs for undergraduates of the agricultural education department; and 4) joint committee activities conducted by teachers, supervisors, and teacher educators. Teacher educators provided data drawn from their recall of specific events of face-to-face communications between themselves and teachers of vocational agriculture.

The five district supervisors of vocational agriculture in South Carolina were used as the population of vocational education supervisors. The same five supervisors were district supervisors in 1968 and 1970.[5] Length of service, as district supervisor, for these men ranged from four to 20 years in 1968; in 1970 that range of experience was from six to 22 years.

Supervisors were assigned the role of key-informant for the identification of opinion leaders. Their task, as key-informants, was restricted to listing the names of the 10 teachers of their districts whom they considered to be the 10 most-likely opinion leaders in selected instructional areas. See Appendix B. The interviewer described characteristics of opinion leaders to respondents. But it is unlikely a clear conception of opinion leadership existed. Supervisors were selected for that task because they, to a greater degree than any other persons, had the advantage of observing each vocational agriculture teacher of the district, both in group meetings and in their local vocational agriculture departments.

Supervisors were also subjected to an interview during which they provided data about specific face-to-face communications with teachers of their districts. The interview schedule appears as Appendix item B. Supervisors were asked to describe conditions of, reasons for, and persons involved in specific face-to-face communication events with teachers of their districts.

Between 1968 and 1970, supervisors were called upon to adjust their patterns of contacting local teachers. That change, installed by a state department of education directive, called for supervisors to act as consultants to local programs, visiting teachers and local programs only upon the request of local personnel. That restricted contact was a departure from earlier patterns of contact in which supervisors visited at will and upon request.

Therefore, even though the supervisors of 1970 were the same individuals as those of 1968, they may have represented a different population because of a change in their knowledge of their teachers.

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[5]The supervisory staff in 1968 had been reduced by one man; therefore one supervisor was in charge of two districts.

This fact should be considered in interpretations of results from the key-informant identification of opinion leaders in 1970.

DESIGN OF THE STUDY

The study, basically descriptive, attempted to survey the total population. No independent variables were manipulated. Essentially, this design collected observations on opinion leadership characteristics in 1968 and in 1970. Intervening variables during these two years were not taken into account in data collection. Data from the Hensel and Johnson 1968 study were compared with data collected in 1970 to determine the stability of opinion leadership among teachers of vocational agriculture. Also, the same design was used to compare the key-informant technique with the sociometric technique for identifying opinion leaders. These comparisons were made in six supervisory districts across 11 instructional areas.

In addition, a one-shot case study was made of the reasons why teachers selected other teachers as opinion leaders and of the communication linkages between teachers in local programs and state-level supervisors and teacher educators. Results from these observations were in the form of nominal and ordinal data: nominal in that names of teachers were recorded as opinion leaders; ordinal in that the teacher names were ranked by key-informants and by the number of sociometric nominations.

In the Hensel and Johnson (1968, pp. 18, 39, 40) study, the key-informants were asked to identify and rank opinion leaders in only one of the 11 instructional areas; in this 1970 study, key-informants were assigned the same instructional area as in 1968. In addition, each was randomly assigned two other instructional areas in which to identify and rank opinion leaders from his own district. The net result was that each key-informant replicated his attempts at opinion leader identification. Also, by identifying opinion leaders in the same instructional area in 1970 as in 1968, the key-informant provided data useful in noting any changes.

DEVELOPMENT AND ADMINISTRATION OF THE INSTRUMENTS

Much of the teacher questionnaire in Appendix C was taken from the instrument used in the 1968 study. Sections I, II, and III are identical with the earlier instrument except for one item added in Section I. This minimized instrument variation which could interfere with data comparisons between years. Sections IV and V were added to provide descriptive reasons for opinion leadership nomination and communication linkages respectively. Sections IV and V were presented to experienced staff at The Center twice and revised to assure face validity of the items.

The seven statements were randomly assigned a position in Section IV of the questionnaire to minimize probability of biased responses due to the researchers' ordering of statements. See Appendix C. Before questionnaires were packaged for delivery to teachers in the response groups, the researchers used a table of random digits to select three numbers for each questionnaire. Those three randomly selected numbers were recorded in the margin of Section IV. Teachers were paced through the questionnaire. When teachers reached Section IV, they were instructed to note the numbers recorded in the margin and to refer back to those same numbers in Section II. The names which appeared by those three numbers in Section II were then recorded in the margin of Section IV. Then, teachers were instructed to respond to Section IV in terms of the names then recorded in the margin. Thus, the responses recorded in Section IV were responses to randomly selected names which were previously listed in Section II as sources of information and advice.

Instructions were prepared to accompany the administration of the questionnaire. See Appendix D. The questionnaire was administered to 12 different groups of teachers by area supervisors. The written instructions were read verbatim to each teacher group completing the questionnaire. That procedure minimized effects due to variation in administration techniques between groups. This procedure accounts for the 80 percent sample. Virtually all of the teachers attending district meetings completed a useable questionnaire. Teachers absent from the group meetings did not have an opportunity to respond to the questionnaire.

The interview schedule in Appendix B was developed to maintain consistency in the interviews. It received the same number of revisions as the teacher questionnaire. One interview schedule was used for each communication event. Each supervisor and teacher educator responded to three communication events recalled from memory. In every case, the interviewer was familiar with the respondent and his program, thereby facilitating ease of communication between interviewer and interviewee.

During the interview, district supervisors were asked to identify opinion leaders. The questionnaire was designed to evoke a two-step response from the respondent: 1) the first response was an unordered list of the names of 10 teachers most-likely to be opinion leaders in a particular instructional area; and 2) the second response was to order the list of names from one to 10. See Appendix B for a copy of the instrument. Each of the five supervisors played the role as "key-informant" completing three of these questionnaires. Each questionnaire was for a separate instructional area; each area was assigned randomly by the research team except for the area completed by the supervisor in 1968.

SCORING OF THE SOCIOMETRIC QUESTIONNAIRES

The sociometric technique for identifying opinion leaders called for teachers of vocational agriculture to identify other teachers of vocational agriculture from whom they would seek advice and information before they would make a major change in their vocational agriculture program. A single source of information and advice was allowed for each of 11 program areas: 1) plant science, 2) animal science, 3) Future Farmers of America (FFA), 4) supervised work experience, 5) agricultural mechanics, 6) farm management, 7) specialized programs in horticulture, 8) specialized programs in agricultural supply, 9) young farmers, 10) adult farmers, and 11) administering a vocational agriculture department.

These data, teachers' choices of sources of information and advice, were obtained from each teacher through the use of a questionnaire (see Appendix item C) delivered and completed in group sessions at the district or federation level.[6] As in the original study by Hensel and Johnson, sociometric scores were computed by totaling the number of times a teacher was named by his peers in each of the 11 program areas. Thus the greater number of peer nominations produced a higher sociometric score. The higher sociometric scores were used as indicators of higher opinion leadership status while the lower sociometric scores were used as indicators of lower opinion leadership status. The following criteria were used in classifying teachers as opinion leaders: 1) teachers named four or more times by peers as sources of information for a given program area (sociometric score of 4 or 4+) were identified as opinion leaders for inclusion into the monomorphic opinion leader list; and 2) teachers named two or more times by peers as sources of information and advice in at least two of the 11 program areas (sociometric score of 4 or greater--2 nominations per program area times at least two program areas equals a minimum of four nominations) were included in the list of polymorphic opinion leaders.[7]

Teachers were allowed complete freedom in choices of teachers named as sources of information and advice. Even though data were secured in group meetings at district and federation levels,

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[6]A district is a geographic division of a state for supervision purposes. The federation is a subdivision of a district and this federation boundary usually follows county boundaries. A total of 12 sessions were conducted in order to lessen travel demands placed upon teachers who completed the questionnaires.

[7]Note also that "four" was the number of nominations established as the criteria for opinion leaders in the Hensel and Johnson study (see Hensel and Johnson, *op. cit.*, pp. 17-18).

teachers were free to name teachers from any geographical location of the state. Yet, teachers were allowed an option to indicate that they would not use other teachers as sources of information and advice. They could do so by inserting the word "none" in questionnaire blanks reserved for teachers named as sources of information and advice.

ANALYSIS OF THE DATA

Most of the data used in this study were nominal- and ordinal-level. Therefore, statistical analysis was limited, largely, to nonparametric statistics.

The first objective of the study, to determine the stability of opinion leadership, required comparisons among data collected in 1968 and 1970. Opinion leaders of 1968 were identified and ranked for each of the 11 instructional areas. Identification and ranking were achieved by use of sociometric questionnaires. Four nominations were required for opinion leadership in 1968 and in 1970. The 1968 list of opinion leaders was constructed first. However, additional names of 1970 opinion leaders were added to the 1968 list with their appropriate sociometric score. Some of the 1970 opinion leaders had low scores in 1968. Some 1968 opinion leaders in 1968 had low scores in 1970. The lists of opinion leaders for the two years were adjusted through additions and deletions to include identical names for each of the 11 instructional areas in each of the six districts in the state. The number of opinion leaders for an instructional area in a district ranged from a low of three to a high of 16. Comparisons among the two lists were achieved with the use of the Spearman rank-order correlation statistic. A significant positive correlation coefficient was interpreted as an indicator of opinion leadership stability.

Analyses of the one-shot status study of comparisons between the key-informant and sociometric techniques were achieved in a manner similar to the 1968 study. District supervisors were designated as the informants for the key-informant technique of opinion leader identification. A district supervisor works with each teacher located in his district in both administrative and supervisory capacities. That kind of work provides a district supervisor with a firsthand contact with each and every teacher within his district.

Five district supervisors listed the 10 top opinion leaders of a given instructional area. Following identification of these 10 teachers considered to be the top opinion leaders for the instructional area, the district supervisor ranked from one to 10 the relative opinion leadership status of each of the 10 identified opinion leaders. See Appendix item B.

Each of the five district supervisors provided a separate list of ranked opinion-leaders for three randomly selected instructional areas. Each program instructional-area list was treated as a replication for each district. Thus, with five districts and three replications per district, 15 replications of the key-informant technique were available for analysis. Random selection of the instructional area replication assured elimination of systematic bias in the selection process. Each of the instructional areas was represented in the key-informant selection. The areas of agricultural mechanics, Horticulture, FFA, and Plant Science included nominations from two districts. All other lists were based on one district's nominations.

Sociometry ratings yielded 11 opinion leader lists for each district, one for each of the 11 program instructional areas; key-informant ratings produced three opinion leader lists for each district. Therefore, the results of the sociometric and key informant techniques for opinion leader identification were comparable for three instructional areas in each district.

In some sociometry lists, teachers from other districts were among the opinion leaders; they were removed from the sociometry lists to be compared with the key-informant ratings because the key-informant ratings were restricted to the local district. In addition, there were numerous cases where opinion leaders of key-informants' ratings were not listed on the sociometry lists and vice versa. One effort was made to include in the sociometry list the same 10 names appearing on the key-informant's list, even at the expense of removing a number of names with relatively high sociometric scores from the sociometry list. The net result of this selection process was that there was an unestimated degree of bias which resulted in inflating the key-informant's ability to duplicate the results of sociometry.

Analysis of results to determine the similarity of each identification technique was determined by comparing the names on the two lists. A high proportion of similarity, e.g., 75 percent, would demonstrate equal effectiveness of the two techniques. A low level of similarity would indicate different reference groups for peers compared to supervisors.

In the sociometric technique, opinion leaders were nominated at least four times by their peers. The 1970 nominations were made at district meetings of the vocational agriculture teachers. This may account for the large numbers of nominations for teachers in the same district. See Appendix E for a listing of nomination changes between 1968 and 1970 data by district and instructional area. In the 1968 study, the six district supervisors identified and ranked opinion leaders in only one instructional area which had been randomly assigned. The five supervisors remaining in 1970 identified and ranked opinion leaders in the same instructional

areas as in 1968 plus two more instructional areas which had been randomly assigned.

It is important to note the supervisors' nominations in the key-informant technique were restricted by district boundaries; while the peer nominations with the sociometric technique extended beyond district boundaries.

Analyses of Section IV and V of the instrument were accomplished through frequency tables of descriptive statistics. In some cases, the questions were rather gross, yielding responses from memory only. Confidence in such answers must be limited. Such questions were not tested with statistics. The interviews with the five supervisors of vocational agriculture and the five teacher educators were summarized as a narrative. Their comments tended to emphasize conditions for face-to-face communications.

CHAPTER III

PRESENTATION AND INTERPRETATION OF FINDINGS

This study of opinion leadership among vocational agriculture teachers in one state examines nominations of teachers as sources of information and advice at two different points in time, during the Spring of 1968 and the Spring of 1970. This time-lapsed design allowed an estimate of opinion leadership stability since the sample of teachers remained the same except for natural shifts due to teacher retirement, deaths, job changes, and/or new teachers due to new programs, program expansions, and teacher replacement. In addition, this 1970 study attempted to replicate the key-informant versus sociometric techniques comparison for identifying opinion leaders. Data were collected on reasons for the opinion leadership selection and the communications linkages for face-to-face relationships among teachers, supervisors, and teacher educators.

Sixty-one 1970 opinion leaders were identified by the sociometric technique whereas 51 opinion leaders were identified by the 1968 Hensel and Johnson study. This fact is important in light of the consideration that only 219 nominators, the respondents, were used in 1970 as compared to 272 respondents in 1968. One would expect that a lower number of nominators would have led to identification of a lower number of opinion leaders since number of nominations was the criteria for identifying opinion leaders. This was not the result. The lower number of nominators in 1970 identified a larger number of opinion leaders when compared to the 1968 results. It was impossible to determine if this fact was due to a shift in less centralized opinion leadership or if it was due to a greater willingness on the part of teachers to disclose from whom they would seek advice.

STABILITY OF OPINION LEADERS' INFLUENCE

Stability of opinion leadership was determined by the number of 1968 opinion leaders who remained opinion leaders in 1970. The extent of their influence was determined by the number of persons who nominated them as opinion leaders in each of the two years. The questions of quantity and quality of opinion leadership stability were resolved through the use of the rank order correlation coefficient. See Appendix E for a listing of the raw data scores for individuals nominated as opinion leaders for each year.

Since most nominations for opinion leaders occurred among members of a district, the correlational analysis was completed by district. Opinion leaders in 1968 and 1970 were ranked and correlated for each of the 11 instructional areas in each of the six districts. Sixty-six correlation coefficients were generated; only nine were statistically significant. Assuming the 66 correlations were drawn from an infinite set of possible correlations, the .05 level of significance states that three of the 66 correlations would be significant by chance alone. Appendix Table A-1 shows the 66 correlations. Table 1 lists the significant correlation coefficients. The reader should note both positive and negative correlations are listed. These data suggest no pattern of relationships among opinion leadership.

TABLE I

CORRELATION OF OPINION-LEADER STATUS
BY INSTRUCTIONAL AREA FOR 1968 AND 1970

Instructional Area	Significant Correlation Coefficients, r_s[a]
Plant Science	no significant correlation
Animal Science	+1.0, +1.0
FFA	+ .76
Supervised Work Experience	+ .90
Agricultural Mechanics	+ .94
Farm Management	- .80, - .84
Horticulture	- .73
Agriculture Supply	+1.0
Young Farmers	no significant correlation
Adult Farmers	no significant correlation
Administering a Vo. Ag. Dept.	no significant correlation

[a]Spearman Rank Order Correlation Coefficients, r_s, tested at .05 level of significance.

The range of opinion leadership nominations varied greatly among instructional areas. The sociometric data in Appendix E illustrates variance in numbers of persons nominated and the number of nominations received per person. This leads one to conclude that variance associated with opinion leadership is relatively unstable and reactive to changing conditions. The data are inherently biased against a significant correlation of scores for the two years. Under normal circumstances due to statistical regression

of extremes: (1) The number of nominations in 1968 which designated the opinion leaders could be expected to regress to fewer nominations per person in 1970. (2) Names added to the 1968 list of opinion leaders as a consequence of their 1970 scores had no opportunity to upgrade their low ratings as opinion leaders in 1968. This regression bias suggests restraint in interpreting the instability of opinion leadership as revealed in these findings.

South Carolina has had a normal influx of new teachers of vocational agriculture between 1968 and 1970 averaging about 15 percent per year. The impact of these new teachers on opinion leaderships was not assessed. A small percentage of 1968 opinion leaders, 5.5 percent, dropped out of the teaching profession during this two-year period.

STABILITY OF POLYMORPHIC OPINION LEADERS' INFLUENCE

By summing the total number of nominations received by each opinion leader across all six geographic supervisory districts and across all instructional areas, 14 polymorphic opinion leaders were identified. Statewide totals were calculated for each of the years, 1968 and 1970. Those opinion leaders were named "polymorphic" because they were named as opinion leaders for more than a single instructional area.

These statewide totals were used to rank opinion leaders for 1968 and 1970. Opinion leaders with the highest total number of nominations were ranked highest. Polymorphic opinion leaders' ranks, for 1968 and 1970, were compared with the Spearman rank order correlation. The data for the rank order correlation are presented in Table 2.

TABLE 2

CORRELATION OF POLYMORPHIC OPINION LEADER'S STATUS IN 1968 AND IN 1970

	Number of Nominations		Rank of Nominations		Difference in Rank Values
Teacher	1968	1970	1968	1970	d_i
A	60	50	1	3	2
B	57	39	2	5	3
C	51	56	3	2	1

(cont.)

(Table 2 continued)

Teacher	Number of Nominations 1968	Number of Nominations 1970	Rank of Nominations 1968	Rank of Nominations 1970	Difference in Rank Values d_i
D	39	69	4.5	1	3.5
E	39	41	4.5	4	.5
F	36	17	6	9	3
G	30	23	7	8	1
H	25	26	8	7	1
I	15	29	9	6	3
J	12	12	10	11	1
K	9	10	11	12.5	.5
L	3	13	12	10	2
M	2	10	13.5	12.5	1
N	2	7	13.5	14	

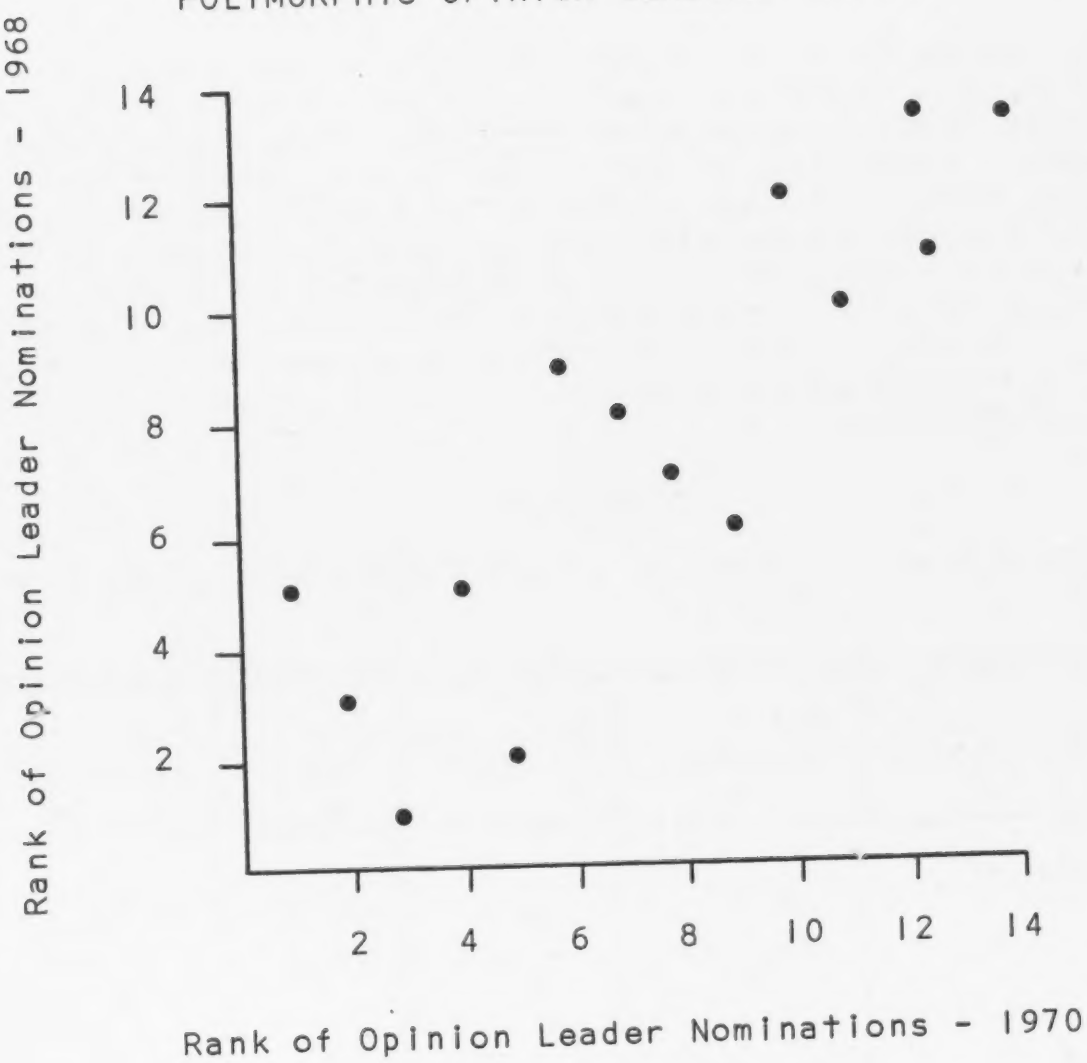
Spearman Rank Order Correlation Coefficient, r_s, = .85, significant at the .01 level.

Figure 1 presents a scattergram of the number of nominations in 1968 and 1970 for polymorphic opinion leaders. The distribution shows obvious linear regression. The extreme ranks for polymorphic opinion leaders for 1968 tended to regress toward the center of 1970 distribution of ranks (e.g., the teacher ranked first in 1968 ranked third in 1970; the teacher ranked 13.5 in 1968 ranked twelfth in 1970). Statistical regression may have accounted for considerable variation of rank for monomorphic opinion leadership between the 1968 and 1970 observations.

In two cases, the polymorphic opinion leadership influence was constant despite a move to another school during this time period. This finding appears to differ from the literature review which suggests a local orientation associated with polymorphic influence. This apparent discrepancy may be explained by the strong organizational ties held by most vocational agriculture teachers. News of an individual's expertise spreads through statewide contests and other events which recognize achievements of teachers. This publicity given individuals within their professional group may account for the differences found in this study between polymorphic and monomorphic opinion leaders. Also, polymorphic opinion leadership was computed at the state level; monomorphic opinion leadership was computed at the district level. Apparently district leadership is more susceptible to change than state leadership.

FIGURE I

SCATTERGRAM OF 1968 AND 1970
POLYMORPHIC OPINION LEADERS' RANKS



STABILITY OF SELECTED CHARACTERISTICS OF OPINION LEADERS

Analysis of selected characteristics of opinion leaders for 1968 and 1970 provided additional information about the stability of the opinion leadership phenomenon. Opinion leaders and peers in 1968 and 1970 were compared on the following characteristics: a) age, b) years teaching experience, and c) college credits earned since professional teaching career began. Also the 1970 observation of "number of workshops attended in the last three years" was used to compare opinion leaders and peer groups.

Hensel and Johnson's observations (1969, p. 40) of these characteristics were used as the comparison values for the two-year period. As in the Hensel and Johnson study, those teachers who

were nominated four or more times as sources of advice were designated as "opinion leaders"; those teachers who received less than four nominations were designated as the "peer" comparison-group.

Table 3 shows opinion leaders in 1970 to be slightly younger, with slightly less teaching experience, and fewer semester hours of credit than their counterparts in 1968. The average age of opinion leaders decreased in 1970 despite a slightly higher average age among vocational agriculture teachers in South Carolina. The teaching experience margin held by opinion leaders in 1968 dropped slightly. However, the 6.5 difference in number of years was statistically significant at the .01 level. See Appendix Table A-3. The decline in college credit earned by teachers was general among the total population. But the greatest drop was among opinion leaders.

TABLE 3

MEAN CHARACTERISTICS OF OPINION LEADERS AND PEERS, 1968 AND 1970[a]

Characteristics	All Teachers	Opinion Leaders	Peers	Difference[b]
Age (in years)				
1968	40.7	46.0	39.6	6.4
1970	41.3	45.2	39.7	5.5
Years of Teaching Experience				
1968	15.1	21.1	13.7	7.4
1970	16.7	20.4	13.9	6.5
Semester Credit Hours Earned				
1968	23.2	33.5	20.8	12.7
1970	22.6	28.0	20.5	7.5

[a]Fifty-one and 61 opinion leaders were identified in 1968 and 1970 respectively. Two hundred and twenty one peers and 158 peers were identified in 1968 and 1970 respectively. These numbers represent all of the teachers responding to the questionnaire each year.

[b]Differences between opinion leaders and peer characteristics were statistically significant at the .01 level for both years. See the ANOV tables in Appendix A.

This 1970 study of opinion leadership identified more opinion leaders with a smaller number of responses than the 1968 study. This would seem to suggest a greater diversity of opinion leaders than was evident in the earlier study.

WORKSHOP ATTENDANCE

One phase of in-service education for teachers of vocational agriculture is the workshop. The workshop is a means of increasing vocational teachers' competencies in specific areas of vocational education. A workshop which may vary in length from one day to three weeks, usually is not provided to increase the number of college credits earned by teachers who attend them. However, this may not always be the case. For purposes of this study, teachers were asked to indicate the number of workshops attended during the last three years which were four or more days in length.

Table 4 compares the workshop attendance of opinion leader and peer groups. Opinion leaders had attended a greater number of workshops, four or more days in length, than their peers.

TABLE 4

NUMBER OF WORKSHOPS ATTENDED BY OPINION LEADERS AND PEERS

		Number of Workshops	
Groups	n	Total	Mean
Opinion Leader	61	174	2.85
Peer	158	346	2.19
		difference	.66[a]

[a]The difference between means for opinion leaders and peers was significant at the .05 level. (t value = 2.03, 217 d.f.)

SOURCES OF INFORMATION

Seven categories, regarded as possible sources of information for teachers, were presented to teachers. From the seven, teachers indicated by a single selection the single source which they used

most frequently. Table 5 shows the results of teachers' choices in 1970 compared with their 1968 choices. Not all teachers responded to this question on the instrument, thus, the n is different from previous tables.

TABLE 5

THE SINGLE SOURCE OF INFORMATION MOST OFTEN CHOSEN BY TEACHERS OF AGRICULTURE IN 1968 AND 1970

Source	Percentage of Sources Used by Teachers					
	Opinion Leaders		Peers		All Teachers	
	1968	1970	1968	1970	1968	1970
	n=51	n=53	n=221	n=157	270	210
Other Vo Ag teachers	31%	32%	36%	38%	35%	37%
Other teachers	0	6	1	0	1	2
District consultants	41	30	30	30	32	30
Teacher educators	0	2	0	0	0	0
School administrators	8	15	16	19	15	18
Professional literature	4	2	6	4	5	3
Advisory group personnel	16	13	11	9	12	10

Over 75 percent of the teachers chose other vocational agriculture teachers, district supervisors, local school administrators, and advisory group personnel as sources of information. Teachers in 1968 chose their district supervisor as the single source to which they would most often refer for information; teachers in 1970 chose other teachers of vocational agriculture as the source most often used for information about the vocational agriculture program.[7]

[7] It was learned during the conduct of the study that since August of 1969 district supervisors were instructed by their supervisor to limit visits with teachers. Supervisor's visits to schools were limited to those occasions in which the supervisors

COMPARISON OF SOCIOMETRIC AND KEY-INFORMANT TECHNIQUES FOR OPINION LEADER IDENTIFICATION

One of the major objectives of the study was to examine the relationship between the key-informant and sociometric techniques for identifying opinion leaders.

Details of the sociometric and key-informant techniques for opinion leader identification have been discussed earlier in the section on procedures. By way of summary, the sociometric technique consisted of securing teacher's nominations of those teachers who would serve as personal sources of information for specific instructional areas; the key-informant technique called for the district supervisors to identify the 10 teachers who were influential as opinion leaders among the other vocational agriculture teachers of that supervisory district.

Five key-informants were available for the study. Each of the five informants had been district supervisors in their respective districts for periods of time which qualified them for having a high degree of familiarity with the vocational agriculture teachers and the vocational agriculture programs of their districts. The shortest period of time that any supervisor had served in that capacity was six years, while the longest period of time was 22 years.

Each key-informant was asked to list 10 names of teachers for each of these instructional areas whom they regarded as opinion leaders among the teachers of his district. Earlier, the teachers of his district had identified opinion leaders of the district as designated by the sociometric technique.

The key-informants' list of teachers was compared to the list generated by the sociometric technique. Results of the comparisons are presented in Table 6. Note that district supervisors enjoyed little success in naming the same teacher who was identified as opinion leader by peer nominations. For example, of 11 teachers identified as opinion leaders in animal science by the sociometric technique, only two were placed in the key-informants' lists of opinion leaders. That was an agreement percentage of only 18 percent. Sixty-three percent agreement was the highest degree of agreement observed for any instructional area.

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were requested by local administrators to serve as consultants to the local program. There appears to be reason to believe supervisors no longer enjoy as close relations with teachers and their programs as they once did when they had greater freedom to make teacher visitations.

TABLE 6

COMPARISONS OF OPINION LEADER IDENTIFICATION TECHNIQUES: KEY-INFORMANT VS. SOCIOMETRY, BY INSTRUCTIONAL AREA

Instructional Area	Number of Teachers Designated as Opinion Leaders by Sociometric Technique	Number of Teachers in Sociometry List Identified by Key-Informant Technique	Percent Agreement Between Techniques[a]
Agriculture Mechanics	19	12	63%
Supervised Work Experience	7	4	57
Horticulture	13	7	54
Adult Farmers	10	5	50
F.F.A.	20	9	45
Young Farmers	8	3	37
Administering a Vo. Ag. Dept.	12	4	33
Plant Science	14	4	28
Farm Management	7	2	28
Agriculture Supply	11	2	18
Animal Science	11	2	18

[a]Percent of teachers identified by peer nominations who were also identified by the key-informants.

The average key-informant identified only 39 percent of the teachers as opinion leaders who were identified as opinion leaders by the sociometric technique. This finding stands in contrast to the correlations found in the Hensel and Johnson study (1969,

p. 39). Correlations from .303 to .674 were significant at the .05 level for five instructional areas in vocational agriculture. No attempt was made to correlate the rank order of the nominations from the key-informant and the sociometric techniques because of the small number of individuals nominated by both techniques and the nomination of opinion leaders by peers from other districts. Tables in Appendix E illustrate the large number of nominations by teachers in other districts. Appendix Table A-5 illustrates problems associated with a comparison of techniques for identifying opinion leaders: many of the names identified by supervisors were not nominated as opinion leaders by fellow teachers. Likewise, eight sociometric opinion leaders in the district were not included on the supervisor's list. No pattern in opinion leadership identification seemed to be present. The key-informants were able to identify about one-third of the opinion leaders as designated by the sociometric technique.

REASONS FOR SELECTION OF TEACHERS AS OPINION LEADERS

Seven selected statements were presented to teachers for their selection of the three statements which best represented the reasons why they chose certain teachers as sources of information and advice. In addition, those three statements were ranked from one to three by teachers to indicate the relative importance of each statement in determining why certain teachers were chosen as sources of information and advice.

The seven statements chosen for Section IV of the questionnaire were representative of three conceptual dimensions: 1) performance, of the type which might indicate the degree to which a teacher exhibits competent activity which is equal to or above the norm; 2) experience, of either the formal education or occupational type; and 3) accessibility, of either geographical proximity or psychological proximity.[8] A seventh statement was incorporated to reflect the total effect of a teacher and his instructional program.

A teacher's accessibility was the dimension most important in teachers' choices of certain other teachers as sources of information and advice. That observation was due primarily to the number of times the respondents chose "teacher's readiness and willingness to discuss" as one of the most important reasons for

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[8]Psychological proximity is used here to represent a condition which invites communication between teachers. That condition may be characterized as one of "willingness to discuss topics in a relatively, candid manner," "a warm reception," "a good natured association," "ease of communicating feelings and ideas," etc.

TABLE 7

MOST IMPORTANT REASONS FOR SELECTION OF CERTAIN TEACHERS OF VOCATIONAL AGRICULTURE AS SOURCES OF INFORMATION AND ADVICE

Reasons	Frequency of Choices for Most Important Reason			
	1st Choice	2nd Choice	3rd Choice	TOTALS
Accessibility				
Teachers willingness to discuss issue	91	133	83	307
Opportunity to contact the teacher	28	45	50	123
Performance				
Students Appear Competent	88	62	44	194
Teacher's program Recommended	58	61	73	142
Experience				
Teacher's Education	20	46	46	112
Teacher's Prior Experience	80	21	25	126
General Statement of Condition				
Teacher's program is similar to my interests	65	18	91	212
TOTAL				1216

selecting certain teachers as sources of information and advice. The need for a particular attitude set in opinion leaders is emphasized by the low frequency on "opportunity to contact the teacher" and high frequency on the general statement, "the teacher has a program similar to that in which I am interested." This high frequency was due primarily to the unusually high number of choices as the third most important reason for selection.

Performance of students ranks strong as the second most important dimension of opinion leader selection.

Statements reflective of teachers' experience, both "prior experience in business or industry" and "teachers' formal educational experiences," received relatively few choices as the first, second, or third most important reasons for selecting certain teachers as sources of information and advice.

COMMUNICATION LINKAGES AMONG TEACHERS, SUPERVISORS AND TEACHER EDUCATORS

Teachers were asked to indicate the frequency of face-to-face communication with district supervisors and teacher educators and to indicate the circumstances usually surrounding the communication contacts.

Comparisons of frequency of contacts for opinion leader and peer groups between both district supervisors and teacher educators are presented in Table 8.

TABLE 8

COMMUNICATION CONTACTS WITH DISTRICT SUPERVISORS AND TEACHER EDUCATORS, BY OPINION LEADERS AND PEER GROUPS

		Frequency of Contacts	
		District Supervisor	Teacher Educators
Group	n	Average No. Contacts/teacher	Average No. Contacts/teacher
Opinion leaders	61	12.69	4.59
Peers	158	10.21	4.03
All teachers	219	10.89	4.19

The average number of communication contacts between teachers and district supervisors was higher than that for contacts between teachers and teacher educators. Opinion leaders tended to have a higher number of contacts with both district supervisors and teacher educators than did their peers.

As data presented in Table 9 indicate, polymorphic and monomorphic opinion leaders differed in the number of contacts they

made with teacher educators and district supervisors. For example, polymorphic opinion leaders tended to have fewer contacts with district supervisors than monomorphic opinion leaders. However, the opposite was true for contacts with teacher educators where polymorphic opinion leaders reported more contacts with teacher educators than did monomorphic opinion leaders.

TABLE 9

FREQUENCY OF COMMUNICATION AMONG TEACHER OPINION LEADERS, SUPERVISORS AND TEACHER EDUCATORS

	Supervisor	Teacher Educator
	Mean	Mean
Opinion Leaders	12.69	4.59
Polymorphic (n = 14)	11.42	5.41
Monomorphic (n = 47)	13.00	4.39
Peers	10.89	4.03

REASONS FOR COMMUNICATION WITH DISTRICT SUPERVISORS AND TEACHER EDUCATORS

When asked to check the reasons, from a list of 10, which necessitated contact with district supervisors, teachers selected items related to reporting, student contests, and curriculum material improvement most often. These three represented 60 percent of the reasons reported by teachers as those accounting for communication between teachers and district supervisors. Supporting evidence is presented in Table 10.

The four reasons chosen from a list of 10 which were cited by most teachers as those accounting for communication with teacher educators were: 1) improvement of teaching methods, 2) improvement of curriculum materials, 3) supervision of student teaching, and 4) participation in a program or conference. Those four reasons accounted for 63 percent of all choices by teachers. Supporting evidence is presented in Table 10.

TABLE 10

REASONS CITED FOR COMMUNICATION
BETWEEN TEACHERS AND STATE-LEVEL PERSONNEL

	With District Supervisors		With Teacher Educators	
	Frequency of Reason	Percent of Total N = 194	Frequency of Reason	Percent of Total N = 101
Send in a report	154	27.4%	6	3.1
Preparation for Student Contests	109	19.4	7	3.6
Improvement of Curriculum Materials	73	13.0	31	15.5
Representation of a Local Teacher Group	56	9.9	14	7.1
Improvement of Teaching Methods	49	8.7	52	26.1
Participation in a Conference or Program	48	8.6	19	9.5
Assistance for Writing a Report	22	4.0	17	8.5
Reporting Research	19	3.4	16	8.0
Negotiation of Teachers' Demands	17	3.1	14	7.1
Supervision of Student Teacher	14	2.5	23	11.5
Total	561	100	199	100

The reader will note very different reasons for contacting teacher educators and supervisors. In fact, the first two reasons selected for contacting supervisors were the last two reasons for contacting teacher educators. Both state-level agencies are interested in the improvement of curriculum materials. The responses of teachers to these communications reasons tend to reflect traditional roles of supervisors and teacher educators. Administration,

supervision, and reporting duties are associated with state department responsibilities while tasks associated with the preparation and improvement of teaching skills traditionally have been assigned to teacher educators.

CONDITIONS FOR FACE-TO-FACE COMMUNICATION

When asked to identify the conditions surrounding face-to-face communication between teachers and supervisors and/or teacher educators, teachers generally indicated most conversations took place in larger group meetings held at the district or lower level. This accounted for 95 percent of the face-to-face communication. State-level meetings, either large or small groups, represented the face-to-face communications of only five percent of the teachers. Supporting data are presented in Table 11.

TABLE 11

CONDITIONS USUALLY SURROUNDING FACE-TO-FACE COMMUNICATION BETWEEN TEACHERS AND DISTRICT SUPERVISORS OR TEACHER EDUCATORS, BY OPINION LEADER AND PEER GROUPS

Location and Size of Group	Opinion Leader N = 61		Peer N = 158	
	No.	%	No.	%
State Level				
5 people or more	1	2	4	3
4 people or less	2	3	4	3
District or Local Level				
5 people or more	48	79	118	74
4 people or less	10	16	32	20
TOTALS	61	100	158	100

The data presented in Table 11 indicate that opinion leader and peer groups of teachers reported similar conditions surrounding their contacts with district supervisors and teacher educators.

Interviews with supervisors indicated that major changes in administering local vocational programs had precipitated an unusually large number of teacher requests this year. Many requests came from teachers and their administrators. Those major changes, not identified in this study, involved extensive visits by the supervisor with many teachers and their administrators.

Aside from these teacher-administrator requests, supervisors explained that large numbers of teachers made personal or telephone visits to secure information relative to program administration, curriculum development, student centered activities such as special shows and contests, plus teacher centered activities such as conferences and educational opportunities. Supervisors emphasized that a large number of individual teacher requests centered around program administration matters relative to policies and reporting procedures.

Supervisors perceived their one-to-one contacts primarily were with the most progressive teachers and with those teachers requiring substantial aid in operating local programs; supervisors' primary contacts with the majority of teachers were limited to the monthly scheduled group meetings (15-20 teachers) held in various local departments. This observation is consistent with teachers' perceptions of conditions surrounding most communication recorded in Table 11.

Teachers appeared to take advantage of the monthly group meetings to visit with supervisors for information and advice and to make the supervisor aware of information relevant to vocational agriculture programs. The interviewer had ample opportunity to observe this information exchange between teacher and supervisor before, during, and after the regularly scheduled meetings.

Supervisors initiated communication through letters and memos to teachers with suggestions about policies, records, teacher and student activities, and curriculum. Teachers were contacted most often by supervisors in regularly scheduled small-group meetings. Much supervisor-initiated communication on a one-to-one basis was observed before and after regularly scheduled small-group meetings.

Teacher educators played a more subtle role than supervisors when influencing vocational agriculture teachers. Much of the face-to-face communication between teacher educators and teachers took place in a relatively formal classroom atmosphere. Curriculum guides and other instructional materials became vehicles for improvement of instruction. Table 10 illustrates the primary concerns of teachers in communication with teacher educators.

In-service workshops for teachers extended the influence of teacher educators beyond the undergraduate program for prospective teachers of vocational agriculture. These workshops were planned

jointly with the state supervisory personnel. Some workshops were for semester credit; others were non-credit, depending on the nature of the activity. Workshops were held at several different locations in the state. Another activity which included inputs from teacher educators and supervisors was the supervision of first-year and returning teachers of vocational agriculture. Visits were made to the school by supervisors and teacher educators.

Vocational agriculture teachers were likely to drop in on teacher educators at the university during a youth activity on campus or to discuss prospective course work. Not infrequently, prospective students were brought to the campus by teachers to acquaint students with professors and probable courses prior to university enrollment. At times like those, teacher educators had opportunities to discuss educational programs being taught in local school districts.

Teacher educators and supervisors met once a month to discuss program priorities for the improvement of vocational agriculture in the state. This liaison meeting generated committees such as the student recruitment committee which included both supervisors and teacher educators. Hopefully, the communication which transpired during these joint staff meetings influenced program plans in both state-level agencies.

CHAPTER IV

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The following conclusions are based on the findings reported in the previous chapter. The implications and recommendations listed in this chapter were interpreted from the data by the researchers.

CONCLUSIONS

1. Most opinion leaders among teachers of vocational agriculture lacked stability in 11 instructional areas between 1968 and 1970. Differences between monomorphic and polymorphic opinion leaders were observed:

   a. Monomorphic opinion leadership influence occurred primarily within a district; proximity was an important factor.

   b. Polymorphic opinion leadership extended beyond the boundaries of most supervisory districts.

   c. Unlike monomorphic opinion leadership, polymorphic leadership was stable between 1968 and 1970.

2. Opinion leadership among teachers of vocational agriculture was more diffuse in 1970 than in 1968:

   a. Opinion leaders in 1970 were slightly younger than their 1968 counterparts; they remained older than their peers.

   b. Opinion leaders in 1970 were slightly less experienced than opinion leaders in 1968.

   c. Opinion leaders in 1970 earned fewer credit hours than opinion leaders in 1968.

   d. Proportionately more opinion leaders were identified per unit of population in 1970 than in 1968.

3. Teachers of vocational agriculture named as opinion leaders were older, had more years of teaching experience, had more

earned college credit, and had attended a greater number of workshops than their peers.

4. Supervisors and other teachers of vocational agriculture were chosen most frequently as sources of information and advice.

5. The teacher's readiness and willingness to discuss a program was the single most important reason for the nomination of an opinion leader by peers. The second most important reason was the performance of his students.

6. Key-informants were able to identify slightly more than one-third of the opinion leaders nominated through the sociometric technique for most instructional areas.

7. Opinion leaders and peers alike communicated with district supervisors more than twice as often as with teacher educators. Much of the communication with supervisors involved reports and preparation for student contests.

8. Communication with teacher educators most frequently had to do with the improvement of teaching, curriculum materials and the supervision of student teachers.

9. Most face-to-face communication between supervisors and teachers took place in district meetings of 15 to 20 teachers.

IMPLICATIONS

Several implications can be derived from an analysis of these data. Among them are the following:

1. The use of monomorphic opinion leaders as agents of change may be severly limited by inconsistent influence. Leadership in groups may shift capriciously in response to demands of the environment.

2. Monomorphic opinion leaders may be incapable of maintaining high level performance over time. Thus, their influence is unstable.

3. Polymorphic opinion leaders may have a sufficiently broad base of support to withstand shifts of influence. In vocational agriculture polymorphic influence tends to be statewide rather than localized as suggested by the literature.

4. Although teachers do not consciously select opinion leaders who have more education or experience, opinion leaders consistently have more of each than their peers. Thus, workshops

and occupational experience may provide the opportunity for teachers to evaluate their peers.

5. Personal characteristics such as age, experience and education may be used to identify prospective opinion leaders.

6. District supervisors were less successful in identifying teacher opinion leaders in 1970 than in 1968. This may be due to the change in assignment which took place during the intervening years, limiting their contacts in individual school districts.

7. The key-informant technique had definite limits when used as the only device for identifying opinion leaders.

8. Teacher educators are rarely used as sources of information and advice for routine program decisions.

9. Teacher educators and supervisors are perceived by teachers as having distinctively different roles.

10. Group meetings of 15 to 20 teachers at the district level provide the greatest opportunity for the use of informal personal influence.

RECOMMENDATIONS

1. A detailed study of communication linkages among supervisors, teacher educators, and teachers in vocational education should be conducted to determine the most efficient and effective communication system for the diffusion of innovations.

2. State staff members should seek out polymorphic opinion leaders on a pilot basis for assistance in decision-making and gaining acceptance of new ideas.

3. A study should be designed and conducted to deliberately test the ability of opinion leaders to influence the acceptance of planned change.

4. The accessibility of opinion leaders among teachers of vocational agriculture should be studied more thoroughly.

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GLOSSARY

GOAL-DIFFUSENESS . . . refers to diverse objectives which may be associated with educational institutions. Clientele groups respond to different needs in the educational system.

INNOVATION . . . an idea perceived as new by an individual.

MONOMORPHIC OPINION LEADERS . . . individuals who function primarily in a single sphere of influence.

OPINION LEADERS . . . individuals from whom others seek advice and information. In this study an individual received a minimum of four nominations from his peers before he was designated an opinion leader.

POLYMORPHIC OPINION LEADERS . . . individuals who exert influence in more than one area of expertise. In this study, they were named two or more times in at least two of the program areas.

SOCIOMETRIC MEASURE . . . a means of assessing the attraction within a given group. In this case, it involved the nomination of persons as sources of information and/or advice.

STABILITY OF OPINION LEADERSHIP . . . that quality of leadership which results in consistent nominations as sources of advice and information. This study required a significant positive rank order correlation between lists of opinion leaders identified in 1968 and 1970 to achieve stability of opinion leadership.

APPENDICES

APPENDIX A

TABLE A-1--CORRELATION OF 1968 AND 1970 OPINION LEADERS STATUS, BY INSTRUCTIONAL AREA AND BY SUPERVISORY DISTRICT

Instructional Area		DISTRICT 1	2	3	4	5	6
1. Plant Science		+ .19	+ .74	+ .27	+ .05	- .44	- .18
	n=	11	4	4	8	12	12
2. Animal Science		+ .30	+1.00	+1.00	- .17	+ .08	+ .21
	n=	9	* 4	* 3	9	6	5
3. F.F.A.		+ .76	-0.06	- .63	- .37	+ .37	+ .14
	n=	* 7	13	4	7	10	12
4. Supervised Work Experience		+ .90	+ .50	+ .45	+ .40	- .62	- .19
	n=	* 5	4	6	7	9	10
5. Agricultural Mechanics		+ .32	- .18	- .65	+ .94	- .36	+ .12
	n=	6	8	6	* 6	8	8
6. Farm Management		- .35	+ .00	+ .50	- .87	- .84	- .80
	n=	6	4	3	3	* 9	* 8
7. Horticulture		+ .52	+ .50	+ .74	+ .20	- .42	- .73
	n=	6	4	5	5	8	* 8
8. Agriculture Supply		+ .75	- .27	+1.00	- .33	- .71	+ .11
	n=	3	4	* 2	4	4	5
9. Young Farmers		+ .72	+ .06	- .28	- .06	+ .27	- .30
	n=	5	6	5	9	8	5
10. Adult Farmers		+ .28	- .38	- .50	- .50	- .50	- .52
	n=	6	7	3	6	8	6
11. Administering Vo. Ag. Dept.		+ .22	+ .50	- .31	+ .39	+ .10	+ .00
	n=	6	3	4	6	4	6

[ ] = Significant at .05.

TABLE A-2--ANALYSIS OF VARIANCE COMPARISON OF OPINION LEADERS AND PEER GROUP'S AVERAGE AGE

Source of Variation	d.f.	Sum of Squares	Mean Square	F
Between	1	1296.25	1296.25	10.97*
Within	217	25638.39	118.15	
TOTALS	218	26934.64		

*F of 10.97 significant at .01 level of significance.

TABLE A-3--ANALYSIS OF VARIANCE: COMPARISON OF NUMBER OF YEARS TEACHING EXPERIENCE FOR 1970 OPINION LEADERS AND PEER GROUPS

Source of Variation	d.f.	Sum of Squares	Mean Square	F
Between	1	1845.00	1845.00	19.61*
Within	217	20416.00	94.09	
TOTALS	218	22261.00		

*F value significant at .01 level of significance.

TABLE A-4--ANALYSIS OF VARIANCE: COLLEGE CREDITS EARNED BY 1970 OPINION LEADERS AND PEER GROUPS SINCE BEGINNING TO TEACH

Source of Variation	d.f.	Sum of Squares	Mean Square	F
Between	1	2478.94	2478.94	11.46*
Within	217	46937.07	216.30	
TOTALS	218	49406.01		

*F value significant at .01 level of significance.

TABLE A-5--KEY-INFORMANT VS. SOCIOMETRY TECHNIQUES COMPARED FOR THE INSTRUCTIONAL AREA OF "ADMINISTERING A VOCATIONAL AGRICULTURE DEPARTMENT"

Key-Informant Nomination for Opinion Leaders	Key-Informant Rank Order	Sociometric Number of Nominations	Sociometric Rank Order
001	2	4	2.5
002	3	0	- -
003	5	5	1.0
004	4	0	- -
005	9	0	- -
006	6	0	- -
007	8	0	- -
008	7	0	- -
009	1	2	4.0
010	10	4	2.5

APPENDIX B
INTERVIEW SCHEDULES

Instructions: The following questions apply to communication (face-to-face conversation only) you have had within the past year with vocational agriculture teachers (not prospective teachers).

_____ Name

_____ SDVTE or Teacher Education

Position and Assignment: _____

_____

PART I INFORMAL COMMUNICATION

Event: (What) _____

_____

Why was the conversation held?

_____

_____

Who initiated conversation? ___

_____

The conversation was with whom? _____

_____

(title) _____

Date: _____

Location: _____

Size of Group: _____

Influenced Decisions On

____Curriculum

____Policy

____Records & Reports

____In Service Training
____Credit
____Non credit

____Supervision

____Research
____Thesis
____Pilot or Demonstration

____Non Professional

____Other (explain)

_____

_____

PART II INSTITUTIONALIZED COMMUNICATION

On what occasions do you routinely have face-to-face conversations with teachers?

Monthly:

Semi-annually:

Annually:

Form Q 8.5c

54/55

(District Consultants)

The Center for Vocational-Technical Education
The Ohio State University
1900 Kenny Road
Columbus, Ohio 43210

IDENTIFICATION OF OPINION LEADERS

INSTRUCTIONS: This questionnaire calls for identification of the top ten opinion leaders among the vocational agriculture teachers of your supervisory district in the area of _____.

(1) Please list ten (10) names of the teachers who you feel are most likely to be opinion leaders among the teachers of your district in the following instructional area: _____.

(2) Indicate the relative position of each of the ten teachers by assigning a rank of one to ten. (i.e., Assign a "1" to the teacher with the highest relative position; assign a "10" to the teacher who occupies the lowest relative position, in terms of influence.)

(1) List of top ten opinion leaders	(2) Rank of the teacher within the top ten (Rank from 1 to 10)
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

State: _____ District: _____

District Consultant (name) _____

Form: Q8.5B/L.S.M./3-31-70

APPENDIX C

TEACHER QUESTIONNAIRE

Form Q 8.5A

The Center for Research and Development
in Vocational and Technical Education

The Ohio State University
1900 Kenny Road
Columbus, Ohio 43210

OPINION LEADER IDENTIFICATION AND SELECTION

I. INSTRUCTIONS: Please answer these questions about your PROFESSIONAL EXPERIENCE and PROFESSIONAL PREPARATION.

Do not write in blocks below

1. Present AGE. _____ [ ][ ]

2. Total number of YEARS you have been teaching vocational agriculture._____ [ ][ ]

3. Number of different SCHOOL SYSTEMS in which you have taught vocational agriculture._____ [ ][ ]

4. Number of YEARS you have been teaching agriculture in your PRESENT SCHOOL. _____ [ ][ ]

5. AMOUNT of schooling completed (CHECK HIGHEST). [ ][ ]

   ____a. Less than bachelor's
   ____b. Bachelor's degree
   ____c. Bachelor's plus
   ____d. Master's degree
   ____e. Master's plus

6. COLLEGE CREDIT you have completed since you began teaching vocational agriculture: semester hours._____ [ ][ ]

7. Number of WORKSHOPS (four days in length or longer) which you have attended within the past THREE YEARS for which NO COLLEGE CREDIT was awarded._____ [ ][ ]

II. From which vocational agriculture teacher in the state would you seek advice and information before making a major change in your program in each of the following areas. Enter ONE NAME or write NONE.

Do not write in blocks below

1. Plant Science _____ [ ][ ][ ]
2. Animal Science _____ [ ][ ][ ]
3. FFA _____ [ ][ ][ ]
4. Supervised Work Experience _____ [ ][ ][ ]
5. Agricultural Mechanics _____ [ ][ ][ ]
6. Farm Management _____ [ ][ ][ ]
7. Specialized Programs in Horticulture _____ [ ][ ][ ]
8. Specialized Programs in Agriculture Supply _____ [ ][ ][ ]
9. Young Farmers _____ [ ][ ][ ]
10. Adult Farmers _____ [ ][ ][ ]
11. Administering a Vocational Agriculture Department _____ [ ][ ][ ]

_____

III. When confronted with a specific problem in your vocational agriculture program, from which of the following sources would you typically seek the advice and/or information needed to solve the problem: (check the single source to which you would most often refer.)

Do not write in blocks below

_____1. Other Vocational Agriculture Teachers [ ]
_____2. Other Teachers [ ]
_____3. District Supervisor [ ]
_____4. Teacher Educator [ ]
_____5. School Administrator [ ]
_____6. Professional Literature (periodicals, books) [ ]
_____7. Advisory Group or Member of Advisory Group [ ]
_____8. Other (specify) _____ [ ][ ][ ][ ]

_____

IV. Most teachers of vocational agriculture prefer to choose persons to whom they would go for information about activities and current practices in vocational agriculture. This section of the questionnaire allows you to indicate THE REASONS WHY you select certain TEACHERS as sources of information and advice.

Instructions: Select THREE names from the list completed in Section II of this questionnaire; next, RANK the THREE REASONS, in the list below, which are MOST IMPORTANT in your selection of each of the three persons listed below; assign "1" to the most important reason, assign "2" to the second most important reason, and assign "3" to the third most important reason you select each individual as a source of information.

REASONS EACH INDIVIDUAL SELECTED AS A SOURCE OF INFORMATION

	Teacher's Prior Experience in Business or Industry	Teacher's Students Appear Competent In the Area	Teacher and His Program Have Been Recommended by Persons I Know and Respect	Teacher is Ready and Willing To Discuss the Program With Me	I Have Ample Opportunity To Contact Teacher About Problems and/or Programs	Teacher Has Attended Workshops or College Courses on the Subject	Teacher Has a Program Similar to That in Which I Am Interested	Other (specify): _____
(EXAMPLE) John Doe		3	1	2				
3								
5								
9								

V. Instructions: This section of the questionnaire asks for information about your contacts with teacher educators and district supervisors. Please fill in each blank with the appropriate symbol:

Do not write in blocks below

1. Since school started in August or September, 1969, how many times have you communicated with a teacher educator _____ (no. of times) or a supervisor (consultant) _____ (no. of times)?

2. Who usually initiated the communication? Please check (✓):
____you, ____another vocational agriculture teacher,
____a supervisor (consultant), ____teacher educator, or
____other (please explain: _____)

3. What are the conditions usually surrounding face-to-face communication between yourself and a teacher educator and/or supervisor (consultant)? Please check only one:

____a large group meeting held at the state level
____a large group meeting held at the district or lower level
____a small group meeting (four people or less) held at the state level
____a small group meeting (four people or less) held at the district or local level

4. Have you communicated with a teacher educator or supervisor (consultant) since school started last fall? ___yes ___no
If yes, why did you communicate with the teacher educators and/or supervisors (consultants)? Please check all that apply:

	Check (✓) the groups you have communication with for each statement	
	Teacher Educators	Supervisors
a. To send in a record or report	_____	_____
b. To improve teaching methods	_____	_____
c. To obtain assistance in writing a newspaper or magazine article	_____	_____
d. To participate in a conference as a speaker or panel member	_____	_____
e. To improve curriculum materials	_____	_____
f. To report on supervision of student teachers	_____	_____
g. To ask help in reporting research	_____	_____
h. To represent groups of local teachers	_____	_____
i. To prepare for a convention or judging contest	_____	_____
j. To negotiate demands for the teachers' organization	_____	_____

APPENDIX D

INSTRUCTIONS FOR ADMINISTERING THE TEACHER INSTRUMENT

INSTRUCTIONS

READ: Two years ago, vocational agriculture teachers of South Carolina took part in a study that was to indicate some important findings:

1. Vocational agriculture teachers indicate their trust in other teachers as sources of information and advice about their programs;
2. Teachers deal with information as a way of life and teachers need reliable sources of information.

Since that 1968 study, leaders in vocational agriculture have asked these questions:

1. Why are some teachers looked to for information and advice?
2. What are the best sources of information for teachers of vocational agriculture?
3. How can we best reach teachers with information they want and need?

You are asked to complete a questionnaire which will be distributed here today. By completing this questionnaire, you will be taking an important part in an important study. By completing this questionnaire, you will be helping to find answers to important questions about how teachers of vocational agriculture can best obtain information which they want and need.

We think you will agree that answers about sources of information are important in planning programs designed for getting information to teachers.

As you are handed a questionnaire, you will notice that this is a study by The Center for Research and Development in Vocational and Technical Education. This is not a thesis or dissertation study. The information which you will provide here today will be analyzed at The Center under conditions which will allow each individual to remain anonymous. No organization, agency, or individual will be given access to the information except as it appears in a final report. No names will be used at any time in reporting the information; information provided by the three states of the study will be held in strictest confidence.

Before the questionnaires are passed out, are there any questions?

NOTE: DISTRIBUTE THE QUESTIONNAIRES TO TEACHERS NOW!

AFTER ALL TEACHERS HAVE A QUESTIONNAIRE, READ:

You will notice that each questionnaire has a number printed on the first page. A corresponding number appears on the small white card attached to the questionnaire. By writing your name on the attached card, you automatically assign yourself a number for purposes of this study. This is done for two purposes:

1. To insure that each teacher will be anonymous for the study.

2. To make the process of analysis easier.

Please write your name on the small card only. Do not write your name on the questionnaire. We do not want your name on the questionnaire. After you have written your name and district number on the white card, pass the cards to the front of the room. Please be sure that the number on the card and the number on the questionnaire are identical. If the numbers are not the same, raise your hand and we'll get you another questionnaire.

This questionnaire has five (5) sections. In order to speed up things and to make sure everyone understands the instructions, you are requested to complete only one section at a time. After you have read the instructions for section one, begin answering the questions in section one and stop when you reach the bottom of the page. Don't begin work on section two until I give you the signal.

Are there questions?

NOTE: PROCEED THROUGH THE BALANCE OF THE QUESTIONNAIRE, COMPLETING ONE SECTION BEFORE PROCEEDING TO THE NEXT. MAKE CERTAIN THAT TEACHERS' QUESTIONS AREN'T LEFT "HANGING."

Specific instructions:

Section I -- Most of your teachers should find this section easy to answer.

Section II -- Teachers' names are to be written here. Be ready to explain that this section will be kept in strict confidence.

Section III -- Make sure that only ONE of the eight items is checked!

Section IV -- Show how the numbers along the margin of section four correspond to the names and numbers of section two.

Indicate that only the THREE most important reasons are required to be RANKED.

Section V -- This section is rather simple and straightforward. However, remember to mention that a "k" item may be added under question number "4." (Student recruitment or student application to the university.)

APPENDIX E

OPINION LEADER NOMINATIONS (SOCIOMETRIC): SELECTED INSTRUCTIONAL AREAS

OPINION LEADERS FOR PLANT SCIENCE

Opinion Leaders	Number of Nominations 1968	1970	Changes
District 1			
324	6	1	-5
061	3	1	-2
156	3	2	-1
203	2	0	-2
925*	1	0	-1
251*	1	0	-1
196*	1	1	0
902*	1	0	+1
280	1	3	+2
189*	0	2	+2
360	0	2	+2
District 2			
925	16	3	-13
189	4	9	+5
902*	1	1	0
271*	1	0	-1
District 3			
902*	1	0	-1
386	1	1	0
372*	1	0	-1
031	0	2	+2

*Indicates opinion leader is located in another district.
**"(OUT)" indicates that the opinion leader is no longer a vocational agriculture teacher.

OPINION LEADERS FOR PLANT SCIENCE (CONTINUED)

Opinion Leaders	Number of Nominations 1968	1970	Changes
District 4			
196	6	1	-5
(out)**	5	0	-5
247	5	1	-4
902*	1	0	-1
(out)**	2	0	-2
173*	1	0	-1
020*	1	0	-1
924	0	6	+6
District 5			
340*	1	0	-1
924*	2	0	-2
237	2	5	+3
384	2	4	+2
246*	1	1	0
196	2	0	-2
264	2	1	-1
902	2	1	-1
917*	1	0	-1
188	2	0	-2
179	1	0	-1
025	0	5	+5
107	0	2	+2
122	0	2	+2
181	2	2	00
349	0	2	+2
District 6			
919	4	1	-3
164*	1	0	-1
356	2	2	0
902	1	0	-1
256*	1	0	-1
133*	1	0	-1
025	0	2	+2
234	1	2	+1
266	0	2	+2
920	1	2	+1
924	1	0	-1
922	0	1	+1

OPINION LEADERS FOR F.F.A.

Opinion Leaders	Number of Nominations 1968	1970	Changes
District 1			
324	8	7	-1
186	4	7	+3
061	3	2	-1
(out)**	2	0	-2
020	3	1	-2
120	2	1	-1
280	3	0	-3
903*	1	1	00
105*	1	0	-1
012*	1	2	+1
246*	1	0	-1
319*	1	0	-1
189*	0	2	+2
256*	0	2	+2
367	0	2	+2
District 2			
105	6	3	-3
	5	0	-5
372*	2	1	-1
048	5	4	-1
012	3	1	+2
903	2	0	-2
165*	1	0	-1
130*	1	0	-1
256*	1	0	-1
186	1	1	00
102	2	2	00
133	1	2	+1
189	0	5	+5

*Indicates opinion leader is located in another district.
**"(OUT)" indicates that the opinion leader is no longer a vocational agriculture teacher.

OPINION LEADERS FOR F.F.A. (CONTINUED)

Opinion Leaders	Number of Nominations 1968	1970	Changes
District 3			
256	7	0	-7
352	4	1	-3
255	3	3	00
165	2	1	-1
District 4			
372	12	0	-12
247	5	1	-4
248	2	4	+2
295	2	1	-1
903*	1	0	-1
290	1	2	+1
292	1	4	+3
District 5			
122	8	3	-5
902	6	4	-2
179*	3	1	-2
165*	3	0	-3
(out)**	1	0	-1
130	3	6	+3
215	2	0	-2
084	0	2	+2
133	0	2	+2
154	0	3	+3
264			
District 6			
066	4	3	-1
133*	3	0	-3
235	2	0	-2
919	2	0	-2
328	2	1	-1
920	2	2	00
234	2	2	00
179	2	5	+3
917	2	1	-1
902*	1	0	-1
357	2	3	+1
020	0	2	+2

OPINION LEADERS FOR SUPERVISED WORK EXPERIENCE

Opinion Leaders	Number of Nominations 1968	1970	Changes
District 1			
324	5	4	-1
156	4	3	-1
(out)**	2	0	-2
902*	1	0	-1
256*	1	0	-1
009*	1	1	00
District 2			
048	2	1	-1
102	2	0	-2
	2	0	-2
165*	1	0	-1
(out)**	1	0	-1
District 3			
009	3	2	-1
256	3	0	-3
038*	1	0	-1
902*	1	1	00
247*	1	0	-1
*	1	0	-1
District 4			
247	4	3	-1
209	3	2	-1
246	2	2	00
902	1	0	-1
009*	1	1	00
179*	1	0	-1
256*	0	3	+3

*Indicates opinion leader is located in another district.
**"(OUT)" indicates that the opinion leader is no longer a vocational agriculture teacher.

OPINION LEADERS FOR SUPERVISED WORK EXPERIENCE (CONTINUED)

Opinion Leaders	Number of Nominations 1968	Number of Nominations 1970	Changes
District 5			
264	4	4	00
902	4	3	-1
179*	3	0	-3
188	2	0	-2
074	2	0	-2
009*	1	1	00
130	0	4	+4
154	1	5	+4
917*	0	2	+2
District 6			
179	4	4	00
024	4	0	-4
902*	1	0	-1
256*	1	0	-1
048*	2	0	-2
133*	2	0	-2
163	1	0	-1
917	3	0	-3
013	0	2	+2
	0	2	+2

OPINION LEADERS FOR AGRICULTURE MECHANICS

Opinion Leaders	Number of Nominations 1968	1970	Changes
District 1			
131	27	21	-6
023	3	3	00
324	2	0	-2
038*	1	1	00
095*	1	0	-1
186	1	2	+1
256*	0	3	+3
347	1	3	+2
District 2			
030	9	4	-5
095*	8	3	-5
131*	7	4	-3
023*	3	3	00
171	2	1	-1
902*	1	0	-1
094	1	7	+6
264*	0	3	+3
175	0	2	+2
District 3			
323	4	1	-3
115	3	2	-1
182	1	0	-1
308	2	0	-2
131*	1	0	-1
902*	1	0	-1
133*	1	2	+1
196*	1	0	-1
247*	1	1	00
251*	1	1	00
038*	0	2	+2
382	0	3	+3

*Indicates opinion leader is located in another district.
**"(OUT)" indicates that the opinion leader is no longer a vocational agriculture teacher.

OPINION LEADERS FOR AGRICULTURE MECHANICS (CONTINUED)

Opinion Leaders	Number of Nominations 1968	1970	Changes
District 4			
038	12	14	+2
251	5	4	-1
196	5	1	-4
964	4	0	-4
131*	2	0	-2
902*	2	0	-2
173*	1	0	-1
246	1	0	-1
323	1	2	+1
325	0	2	+2
	0	2	+2
District 5			
264	13	18	+5
902	8	0	-8
(out)**	5	0	-5
038*	2	2	00
350	2	2	00
916	2	0	-2
196*	1	0	-1
131	0	2	+2
154	0	2	+2
District 6			
264*	9	5	-4
903*	4	0	-4
030*	3	4	+1
340	3	0	-3
163	2	4	+2
131	0	3	+3
038	1	2	+1
013	0	3	+3

OPINION LEADERS FOR ANIMAL SCIENCE

Opinion Leaders	Number of Nominations 1968	1970	Changes
District 1			
903*	9	5	-4
203	3	1	-2
324	6	5	-1
902*	1	0	-1
012	1	0	-1
089	0	3	+3
189	0	2	+2
321	1	2	+1
186	3	2	-1
District 2			
343	27	20	-7
048	2	2	0
165*	1	1	0
District 3			
165	8	4	-4
903*	4	3	-1
100	2	2	0
District 4			
903*	4	4	0
	4	0	-4
252	5	2	-3
902	1	0	-1
264	2	0	-2
038	1	2	+1
165	0	3	+3
211	0	2	+2
290	0	2	+2

*Indicates opinion leader is located in another district.
**"(OUT)" indicates that the opinion leader is no longer a vocational agriculture teacher.

OPINION LEADERS FOR ANIMAL SCIENCE (CONTINUED)

Opinion Leaders	Number of Nominations 1968	1970	Changes
District 5			
130	8	10	+2
*	3	0	-3
160	2	0	-2
966	3	0	-3
902	2	1	-1
264	0	2	+2
District 6			
(out)**	4	0	-4
163	3	2	-1
903*	2	3	+1
902*	1	0	-1
920	2	1	-1
143	0	2	+2

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